REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the comments set forth fully below. Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-43 were pending. Within the Office Action, Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-43 have been rejected. Accordingly, Claims 1, 3-10, 12-19, 21-28, 30-37 and 39-43 are now pending.

Rejections Under 35 U.S.C. § 102

Within the Office Action, Claims 1, 7-10, 16-19, 25-28, 34-37 and 43 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. US 2002/0143819 to Han et al. (hereinafter "Han"). The Applicants respectfully disagree. Han does not teach that a **hierarchical data content structure comprises a plurality of channels** as claimed in the present claims.

Within the Response to the Arguments section in the Office Action, it is stated that Han shows that the data content structure can be organized into hierarchical categories. It is stated that it is believed that the categories pertain to content categories as alluded to in paragraph 169. It is further stated within the Office Action that Han also discloses channels that deliver the content described above .... The categories of content inherently contain the channels of content (i.e. to view the content). It is then concluded within the Office Action that it is inherent that the data content structure comprises a plurality of channels since the hierarchical data content structure are hierarchically categorizes by content that contain channels. Applicants respectfully disagree with this conclusion. There is nothing within Han that supports this conclusion. Within the teachings of Han there is no hint, teaching or anything that suggests that a hierarchical data content structure comprises a plurality of channels.

Han teaches a syndicator for disseminating Web services and other resources from service and content providers to service consumers and for establishing and implementing a subscription agreement which specifies *the terms* upon which digital assets are provided to the subscribing consumers. A registration database stores a service description for each of a plurality of different Web services and other resources. Han teaches that each stored service description contains an input processing specification, an output processing specification, and the specification of the business terms upon which the described service or resource is offered by its provider to

subscribers. Han also teaches that a subscription manager conducts a negotiation with a prospective subscriber and receives from the subscriber an acceptance of the business terms upon which a specified Web service or resource is offered to establish a subscription agreement. [Han, Abstract]

Han further teaches that a service is modeled through an XML document named service descriptor. The service provided is defined by a multitude of logical components, all of which are specified in the service descriptor. There are two sections of the descriptor, one focusing on the higher level descriptions of the service, known as the service header, and another delving on the details of implementations of the service, known as the service body. [Han, ¶ 0081- 0082]

Han further teaches that specified in the descriptor is a set of deployment properties comprised of suggestions from the service provider to aid the service engine administrator during registration time. They include <u>classification guidelines with hierarchical categories</u> as well as flat keywords, and recommendations of caching parameters. [Han, ¶ 0087] Furthermore, Han teaches that "[a]s contemplated by the invention, the syndicator aggregates <u>subscription offers from service and content providers to form a catalog</u>." [Han, ¶ 0010, emphasis added]

As described above, Han teaches that the syndicator uses the descriptors provided from the service providers to identify the service providers and delve on the implementation of the service. The implementation section of the descriptor provides classification guidelines to classify the **terms of deployment** into hierarchical categories. [Han, ¶ 0010 and ¶ 0013]

The syndicator categorizing or ranking the service terms according to their classification guidelines, such as key words, assigns classification attributes to those service terms. **Service terms that are classified by classification attributes do not form channels.** Therefore, classifying the terms of deployment into hierarchical categories do not make channels.

Although Han has coincidentally used the word "channels" in his teaching of "delivery channels", Han does not teach a *hierarchical data structure* having a plurality of *channels*. Han discloses that

> [i]n order to use a dynamic service, such as a web service, the subscriber reviews the catalog published by the syndication server, identifies a selected offered service, and then participates in a negotiation process supervised by the syndication server with respect to any negotiable terms of the selected offer. *The business relationship or "subscription" is defined by the fixed terms of the offer, and the negotiated terms agreed upon between the provider and the subscriber, and may include price, billing policies, content redistribution rights, copyright licensing, delivery quantities and channels.* [Hans, ¶ 0013, emphasis added]

As described above, Han teaches that the **negotiated terms** agreed upon may indicate the quantity of service that is going to be delivered and show <u>from which service provider the service is to be obtained</u>. As such, Han uses the term "delivery channels" to specify from where the services will be obtained. Hans does not teach a *hierarchical data structure* having a plurality of *channels*.

       As discussed above, although Han teaches "hierarchical categories" and separately teaches "delivery channels", Han does not teach a *hierarchical data structure* having a plurality of *channels*.

       In contrast to the teachings of Han, Applicants' Application is directed to devices and methods of content distribution, which may include one or more applications, a network, a communications layer, and an extension layer. The extension layer provides document type definition extensions to the communications layer. The document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure. *The **hierarchical data content structure** of the present invention comprises a plurality of **channels**.* As discussed above, Han does not teach a *hierarchical data content structure* having a plurality of *channels*.

       The independent Claim 1 is directed to a network device coupled to a network of devices. The network device of Claim 1 comprises one or more applications, a network layer coupled to interface with one or more other network devices, a communications layer to provide a communications protocol to manage data content exchange between the network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for data content and metadata corresponding to the hierarchical data content structure, further wherein the *hierarchical data content structure* comprises a plurality of *channels*. As described above, Hans does not teach the *hierarchical data content structure* comprises a plurality of *channels*. For at least these reasons, the independent Claim 1 is allowable over the teachings of Han.

       Claims 7-9 are dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Hans. Accordingly, Claims 7-9 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 10 is directed to a method of providing data content between a first network device and one or more other network devices. The method of Claim 10 comprises providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices, providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, configuring the *hierarchical data content structure* into a plurality of *channels*, and transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As described above, Hans does not teach configuring the *hierarchical data content structure* into a plurality of *channels*. For at least these reasons, the independent Claim 10 is allowable over the teachings of Han.

Claims 16-18 are dependent upon the independent Claim 10. As discussed above, the independent Claim 10 is allowable over the teachings of Hans. Accordingly, Claims 16-18 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 19 is directed to an apparatus for providing data content between a first network device and one or more other network devices. The apparatus of Claim 19 comprises means for providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices, means for providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, means for configuring the *hierarchical data content structure* into a plurality of *channels*, and means for transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol. As described above, Hans does not teach means for configuring a *hierarchical data content structure* into a plurality of *channels*. For at least these reasons, the independent Claim 19 is allowable over the teachings of Han.

Claims 25-27 are dependent upon the independent Claim 19. As discussed above, the independent Claim 19 is allowable over the teachings of Hans. Accordingly, Claims 25-27 are also allowable as being dependent upon an allowable base claim.

The independent Claim 28 is directed to a network. The network of Claim 28 comprises one or more network devices, and a first network device coupled to the one or more other

network devices. The first network device comprises one or more applications, a network layer coupled to interface with the one or more other network devices, a communications layer to provide a communications protocol to manage data content exchange between the first network device and the one or more other network devices, and an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, further wherein the *hierarchical data content structure* comprises a plurality of *channels*. As described above, Hans does not teach that the *hierarchical data content structure* comprises a plurality of *channels*. For at least these reasons, the independent Claim 28 is allowable over the teachings of Han.

Claims 34-36 are dependent upon the independent Claim 28. As discussed above, the independent Claim 28 is allowable over the teachings of Hans. Accordingly, Claims 34-36 are also allowable as being dependent upon an allowable base claim.

The independent Claim 37 is directed to a network device coupled to a network of devices. The network device of Claim 37 comprises one or more applications, a network layer coupled to interface with one or more other network devices, an Information and Content Exchange protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices, and extensions to the document type definitions, wherein document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure, further wherein the *hierarchical data content structure* comprises a plurality of *channels*. As described above, Hans does not teach that the *hierarchical data content structure* comprises a plurality of *channels*. For at least these reasons, the independent Claim 37 is allowable over the teachings of Han.

Claim 43 is dependent upon the independent Claim 37. As discussed above, the independent Claim 37 is allowable over the teachings of Hans. Accordingly, Claim 43 is also allowable as being dependent upon an allowable base claim.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 3, 12, 21, 30, and 39 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of U.S. Patent Application Publication No. 2003/0212608 to Cliff (hereinafter "Cliff").

Claim 3 is dependent on the independent Claim 1. Claim 12 is dependent on the independent Claim 10. Claim 21 is dependent on the independent Claim 19. Claim 30 is dependent on the independent Claim 28. Claim 39 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, Claims 3, 12, 21, 30 and 39 are all also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 5, 14, 23, 32, and 41 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of Cliff.

Claim 5 is dependent on the independent Claim 1. Claim 14 is dependent on the independent Claim 10. Claim 23 is dependent on the independent Claim 19. Claim 32 is dependent on the independent Claim 28. Claim 41 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, the dependent Claims 5, 14, 23, 32, and 41 are all also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 6, 15, 24, 33, and 42 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of Cliff.

Claim 6 is dependent on the independent Claim 1. Claim 15 is dependent on the independent Claim 10. Claim 24 is dependent on the independent Claim 19. Claim 33 is dependent on the independent Claim 28. Claim 42 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, the dependent Claims 6, 15, 24, 33, and 42 are all also allowable as being dependent on an allowable base claim.

Within the Office Action, Claims 4, 13, 22, 31, and 40 have been rejected under 35 U.S.C. §103 as being unpatentable over Han in view of Cliff and further in view of U.S. Patent No. 7,062,546 to Kolar et al (hereinafter "Kolar").

Claim 4 is dependent on the independent Claim 1. Claim 13 is dependent on the independent Claim 10. Claim 22 is dependent on the independent Claim 19. Claim 31 is dependent on the independent Claim 28. Claim 40 is dependent on the independent Claim 37. As described above, the independent Claims 1, 10, 19, 28 and 37 are all allowable over the teachings of Han. Accordingly, the dependent Claims 4, 13, 22, 31, and 40 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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